

FACULTY OF SCIENCE
B.Sc. III-Semester (Practical) Examination
Subject: MICROBIOLOGY
QUESTION BANK

Time: 2 Hours**Max. Marks: 25****Note: Each candidate has to perform one experiment and four spotters.****I. Experiment Question****(12 Marks)**

1. Find out the viable count of bacteria by enumerating the colonies developed on media plates inoculated with serially diluted sample.
2. Take the turbidity readings of culture tubes provided for different time intervals of growing bacterial cultures and plot the graph for growth curve.
3. Observe and record the OD of bacterial culture grown at different pH given in separate tubes. Find out the optimum pH for bacterial growth by plotting the graph.
4. The bacterial culture samples grown at different temperatures were given in tubes. Read the growth and find out the optimum temperature for growth by plotting the graph.
5. Observe and record the OD of bacterial culture grown at different salt concentrations given in separate tubes. Find out the optimum salt concentration required for bacterial growth by plotting the graph.
6. Demonstrate 10 fold serial dilution to obtain a dilution of 10^{-5} of the given sample and inoculate 10^{-3} dilution on the given agar plate using spread plate technique.
7. A bacterial culture is provided to you. Demonstrate starch hydrolysis test and interpret your result.

II. Specimens for Spotting**(4 Spotters 4x2=8 Marks)**

8. MacConkey agar
9. Blood agar
10. Winogradsky column
11. Streak plate
12. Spread plate
13. Algal medium (Phototrophic medium)
14. Growth curve
15. Sugar fermentation test
16. Viable count
17. Starch hydrolysis
18. Agar slant

III. Record and viva**(5 Marks)**